

5.

Hygiene Of  
Circulation, Clothing, Bathing,  
&  
Excretions.



*Faint, illegible handwriting, possibly a signature or date, visible through the paper.*







✱ Theory & relief of insomnia,

Space & space

Blumenbach. end of 18<sup>th</sup> century  
anticipated the theory —

Sandy in 1821 do. an elect. case

Durham later experiments &  
Hammond —



CEREBRO-SPINAL  
FLUID.

STOOPING.

The cerebro-spinal fluid, common to both brain & spinal marrow, goes down when there is an excess of blood in the brain.

We should avoid <sup>unnecessary</sup> stooping positions. ~~All~~ Especially should ~~the~~ persons do so, if

The effect of the ~~application~~ application of cold, is well known. We put cold water to a hot head.

WRAPPING  
INFANTS  
IN CLOTHES.

It is an error in <sup>management of</sup> children to put a large cap on the head. It is ~~unwholesome~~. A want of knowledge ~~leads to~~ the practice of heaping blankets on children, thus excluding fresh air and often making the children sick. <sup>course</sup>

HEART.

The heart should be sound. It is disturbed by excessive exercise. When we exercise our muscles, the heart by synergy, acts with them. If we run the pulse runs also.

HYPERTROPHY.

Hypertrophy, or enlargement of the heart may result. This is caused by either obstruction of the valves, or



Dr. Cornelius Black on importance of pure air  
to continuance of life in persons with fatty or  
organically diseased hearts after middle life

Hill,  
Dr. Stille  
Dr. La Costa.

Temporize here  
[Space 1 page]

although disease of the heart is mentioned as  
more frequent among soldiers than among civilians. A  
Common cause is,  
the weight & undue pressure  
of the accoutrements  
the knapsack, &c.

[End of 11<sup>th</sup> Lecture, 1872.]

Alexander Brown Essay, 1871, by ——— ?

Dr. Cornelius Black's observations on the influence of  
insufficient aeration of the blood in promoting degenerative dis-  
ease of the (right) heart after middle life; especially fatty  
degeneration, from imperfect oxidation & removal of muscular tissue.



prolonged violent efforts or excitement of the heart.

by exercise. Firemen often have this disease. It is also caused by excessive gymnastic exercise: cricket, Rowing &c.

ATROPHY.

Over-exertion often produces atrophy instead of hypertrophy. ~~Fortum~~ ~~fallthru~~ requires nourishment & rest.

COMMON DISEASE  
TO SOLDIERS.

~~Exhaustion~~ ~~among~~ ~~soldiers~~, who get ~~overworked~~ by long marches and want of food & rest. This is <sup>clearly</sup> ~~not~~ <sup>by authors as occurring</sup> mentioned in European armies. It is characterized by rapidity without energy, feeble beat, no valvular murmur, incapacity to exercise, &c. Many soldiers often suffered from its ~~wrong~~ <sup>very overdone</sup> treatment.

ITS SYMPTOMS.

EXCITANTS.

Excessive use of alcohol, venereal <sup>cess by abuse</sup> exercise, and coffee, and, as Richardson says, tobacco, hurry the movements of the heart.

TEMPORARY PALPITATION.

Temporary palpitation is often caused <sup>by asphyxia & by</sup> nervousness. If kept up, hypertrophy ~~may~~ result.

MECHANICAL OBSTRUCTION.

Mechanical obstruction of the venous blood, as by stooping, tends



Also, Bright's Disease;  
[Watson] — how? Condition of blood?

Resistance in both kidneys to outflow  
from aorta into renal arteries?  
This resistance is not necessarily  
always excessive.

Varicose veins —  
& ulcers —

Therefore, rest, recumbent,  
is necessary in their treatment.

End of 26th Lecture, 1873.

[Hampden, 1876:]

Defici. Hygiene —  
Ancient - modern -

Personal & Public:

Domestic

of town &

Children

& aged,

& sick —

of encampments

& maritime.

Foundations — Physical & Hygienic

Duties, of Personal Hygiene:

Alimentation (Food, Drink & Standard &

Respiration (Atmosphere)

Circulation

of the Skin (Cloth & Bath)

of Excretion —

Reproduction (Sexual Hygiene)

Mental Hygiene.

Public Hygiene —

Statistics

Vital Statistics,



~~injury~~



TUBERCULOSUS.

to produce hypertrophy.

② A venous state <sup>of the blood</sup> is said to favor immunity from tuberculosis. (Rokitansky). Not well proven.

FULL AERATION

① Full <sup>al</sup>eration of the blood is essential. A tight cravat or garter is injurious. Tight Lacing!

SUDDEN APPLICATION OF COLD.

The sudden effect application of powerful cold, is unsafe. When heated <sup>by fatigue</sup> do not drink <sup>too much of</sup> ice water. It is not so much the heat, but the fatigue which makes it dangerous.

We next take up the

HYGIENE OF THE SKIN.

### Hygiene of the Skin.

The uses of the skin are <sup>several</sup> ~~four~~ -  
 (Secretory, Excretory, Sensitive, Protective.) Next to the stomach, the skin is abused more than any other organ. Under hygiene of the skin we shall consider clothing and Bathing.

FUNCTIONS OF THE SKIN.

CLOTHES.

Clothes were first adopted for <sup>of appearance.</sup> decency. In different countries, the manner of wearing <sup>them</sup> <sup>quite</sup> is different.



It works differently in different constitutions.

Illustrate by two examples.

@ 12%  
R.R.

Space  $\frac{1}{2}$  page

"Limits of perfect recovery" in physics.

A <sup>railway</sup> bridge, e.g., made 4 or 5 times as strong  
as is needful to support the passage of any one  
train of cars over it; because  
every strain (otherwise) impairs  
its enduring power.



CUSTOMS.  
DIFFERENT  
OF  
DIFFERENT  
COUNTRIES.

Among the lower classes of Egypt, a woman will often expose her body so as to use the only clothing she has, to conceal her face from the eyes of men. ~~then uncovered feet, not hands~~ in mosque.

Pickering says that in the Pacific islands, those who wear clothes become liable to colds.

The <sup>ability</sup> great principle ~~of~~ clothes depends upon <sup>is</sup> their being non-conductors of heat.

REQUISITES  
OF CLOTHES.

1. Clothing must be 1st. sufficient, 2nd. not excessive in amount or pressure, 3rd. properly distributed, 4th. permeable to air & moisture, & 5th. changed for cleanliness.

NOT  
WEARING  
ENOUGH  
CLOTHES.

Some men think <sup>promotive of vigor</sup> it ~~mainly~~ to wear as little clothing as possible. This is a mistake, we should always wear enough. <sup>↑</sup> Cattle raisers find that it is economical to house their cattle in winter.

TEMPERATURE  
OF  
ROOMS.

The temperature of a sitting-room should be <sup>69° or</sup> 70°, especially in cold weather; that of an office 65°; that of



Q Heat of radiation & that of the air of a room  
may be quite different at the same time.

\* 1895, the tendency to inflation, in fashion, seems  
for the time to have passed by; contraction prevails,  
approaching closely to a substantial basis. Whether  
this is or is not to be followed by the pantaloon, or the  
chemiloon, <sup>no one</sup> not even "Old Probabilities," can tell; as  
Fashion, like necessity, knows no law, and very  
little reason.

\* Sleeping  
we get colder -  
provide accordingly  
but not too much.



room in which people are working or moving about

somewhat less; that of a sick room  
always as high as 70° - at middle of room.

EXCESSIVE  
CLOTHES.

Excessive clothing, overheats and  
overburdens the body. The heavy  
skirts of <sup>modern some years ago</sup> ladies were very bad. The  
hoopskirts\* accomplished the wished-  
for expansion, and are besides  
~~very~~ hygienic. ~~superfluous dress~~ (further on)

ADAPTATION  
TO THE WEATHER.

<sup>as remarked before,</sup> Tight Corsets are very injurious.

<sup>carefully</sup> We should adapt our clothing  
to the weather. In China, <sup>it is said,</sup> some

CHINA.

<sup>about</sup> ~~people~~ have six <sup>garments</sup> sets of clothes on  
in the morning. Every hour, they  
take off one, <sup>begin to</sup> till about noon, <sup>then put them on again.</sup>

NILE  
BOATMEN.

On the Nile, the boatmen wear  
pants, shirt, cloak, and shoes. If  
it is warm they leave off the cloak;  
if very warm, the pants and if  
they have to get into the water, off  
goes everything.

CHEST.

In the distribution of clothing,  
the chest is the most important  
to be covered, <sup>especially in winter.</sup> If we keep the chest  
warm and leave the hands bare,



HIGHEST  
SURF  
TEMPERATURE.

<u>Highest Surf Temperature</u>	
Cape May	70° - 80°
Boulogne, France	65° - 70°
English Coast	68° - 72°
Normandy.	69°
Baltic Sea	66°
Mediterranean, Trieste	86°

PECULIARITIES  
OF  
SEA WATER.Peculiarities of Sea Water

1. It is stimulating to the skin, by the salts contained in it.
2. It is denser than fresh water, and by pressure tends more to send blood to the head.
3. The salts are to some extent absorbed, and act upon the secretions.

## PRECEPTS.

Precepts.

Always wet the head soon and often, in bathing.

Remain in the surf only 15 minutes (for health).

End of 23d Lecture, 1868.  
22nd " 1867.



Haverford School Association.

our hands &  
if we wore g  
exposed.

GREAT ORGANS

The chest co  
lungs. It is  
heater-~~the~~  
of a furnace

ABDOMEN.

Next to the  
careful of the

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sudden chan  
flannel bar  
Warm weath

FEET.

In regard  
feet require the most care. They are  
the farthest removed from the  
heart, & thus the most easily chilled. Not to be too  
rapidly heated, however, <sup>Lecture XXIII.</sup> in very cold weather.

EVAPORATION

Clothing must allow <sup>of transpiration and</sup> evaporation.  
During the inauguration of one of  
the popes, a child was gilded to rep-  
resent the golden age. The child died.  
If the body be burned badly, even

BAD BURNS.

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cold  
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abdomen  
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domin  
es, the



On the accession of  
 Leo X to the papal  
 Chair of Rome, there  
 was a grand procession  
 in Florence, & a little  
 girl was coated all  
 over with gold leaf,  
 to represent the "Golden  
 Age." The child died  
 in a few hours in  
 convulsions, the spec-  
 tators being ignorant  
 of the cause. That  
 cause was, suppression of  
 the cutaneous transpi-  
 ration. Inevitable since.

### Highest Surf Temperature

May ————— 70°-80°  
 France ————— 65°-70°  
 Coast ————— 68°-72°  
 ndy. ————— 69°  
 Sea ————— 66°  
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### Qualities of Sea Water

relating to the skin, by the  
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End of 23rd Lecture, 1868.  
 22nd " 1867.



our hands will be warmer than if we wore gloves and left the chest exposed.

GREAT ORGANS

The chest contains the heart & lungs. It is so to speak, the great heater-~~the~~, just as in the case of a furnace. Especially the protected in winter & cold climates.

ABDOMEN.

Next to the chest, we should be careful of the abdomen.

It has no bony casing and is more subject to vicissitudes of sudden change. Our soldiers wore flannel bands around the abdomen. Warm weather relaxes the abdominal <sup>organs</sup>.

FEET.

In regard to the extremities, the feet require the most care. They are the farthest removed from the heart, & thus the most easily chilled. Not to be too rapidly heated, however, <sup>Lecture XXIII.</sup> in very cold weather.

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BAD BURNS.



\* Change of clothes very important to the sick.  
cc. spare 6 lives

Ext. - wound of arm undressed  
2 nicks not undressed



means of drying precipitates, and if the doors are left open there will be but little danger of burning them; while if we wish a heat of one hundred and fifty or two hundred degrees Centigrade, it is easily obtained by shutting the doors. A small still set on one corner will furnish all the distilled water that is needed in a laboratory where not more than two or three are working, by running it one or two days in the week. And further, if there is a good draft we can easily melt a pound or two of any metal that has a lower melting point than silver, by placing the crucible in the fire. We are perhaps somewhat enthusiastic on the subject of a cooking stove, but we have just got possession of one again after doing without for a year or two, and we know how to appreciate it.

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rc. g. boots  
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We should

PRACTICAL RECIPES.

en enough  
not wear the same, night & day.  
Those who have to do so <sup>when</sup> sitting  
up all night, often feel refreshed  
by a bath <sup>in the morning</sup>.  
Soldiers <sup>in time of war</sup> suffer much <sup>disadvantage</sup> from their  
having to wear their clothes so long.  
They could sometimes be smelled  
across the street. Washing feet on march very important.  
Uncleanliness does not <sup>always</sup> injure  
as much as would be expected.  
There is <sup>some</sup> adaptation to circum-  
stances. The other excretory organs  
help the skin.  
The fact that spotted fever is  
coincident with war or garrisons  
shows its <sup>probable or at least possible</sup> connection with uncleanli-  
ness. It <sup>could</sup> be a poison produced by

REMOVAL  
OR  
CLOTHING.

SOLDIERS

ADAPTATION  
TO  
CIRCUMSTANCES

SPOTTED  
FEVER.



EXHALATION OF CARBONIC ACID BY THE SKIN. — Some interesting researches with regard to the amount of carbonic acid exhaled in a given time from the skin of a man, conducted by Herr Aubert, and his assistant, Herr Lange, have appeared in Pflüger's *Archiv für Physiologie*. The experiments have been carefully made in an air-tight chamber, in which the subject for experiment was seated, and through which a current of air, freed from carbonic acid, was steadily passing, while the proportion of carbonic acid in the air on leaving the chamber was estimated by transmission through bulbed tubes containing a solution of a salt of barium. The results of these investigations lead to the general conclusion that sixty-two grains of carbonic acid are exhaled from the body of a full-grown man through the skin in the course of twenty-four hours. (*organic matter also.*)

\* Change of clothes very important to the sick.

cc.

Space 6 lines

Ex. — wound of arm undressed  
2 weeks not undressed



less than half, death will follow.  
 Any clothing which will prevent transpiration ~~is~~ <sup>unhealthy</sup> ~~unhealthy~~, hence care must be taken in the use of gum blankets, gum shoes, &c. <sup>Loose</sup> <sup>g. Boots</sup> <sup>less so.</sup>

REMOVAL  
OF  
CLOTHING.

Clothes should be removed often enough for cleanliness. We should not wear the same, night & day.

Those who have to do so <sup>when</sup> ~~by~~ sitting up all night, often feel refreshed by a bath <sup>change</sup> in the morning. \*

SOLDIERS

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SPOTTED  
FEVER,

The fact that spotted fever is coincident with war or garrisons shows its <sup>probable or at any possible</sup> connection with uncleanliness. It <sup>can</sup> ~~is~~ <sup>may be, or</sup> poison produced by



Dr. Miché Edwards' experiments with young animals.

3 young children in this winter (1868-9) from the  
 North States, were put into the bottom of a  
 wagon by their parents, who had to take them a night journey of  
 a number of miles. They were perfectly quiet. At the end of the ride, the  
 father & mother went to take them out — found them all  
 dead! → Warmth of sick children, in bed.  
 Cold blankets not always enough.



the long existence of foul matter in the clothes of soldiers.

CHILDREN.

Children require more clothes than adults, although it is not generally thought so. <sup>their activity, of course, helps to keep them warm.</sup> Their legs & arms, especially, should be protected. <sup>Group, &c.</sup>

"FULL DRESS"

~~Scarcely~~ <sup>to the warmth of</sup> mistakes are <sup>often</sup> made in regard the dress of ladies. The term "full dress" is <sup>certainly</sup> a misnomer. It

WARMEST MATERIALS.

<sup>may be worn</sup> well enough in a warm room, but should the lady <sup>stand</sup> <sup>for a little while</sup> in a draft she is <sup>very</sup> liable to take cold. <sup>So also, leaving a hot room, many persons are</sup>

<sup>usually stated</sup> The order of warmth of the materials used for clothing, is <sup>furs &</sup> wool, silk, cotton, and linen.

RUMFORD'S CONCLUSION.

Count Rumford <sup>proved</sup> that silk <sup>is the same thickness, even</sup> is warmer than wool. We <sup>generally</sup> under-rate the value of silk. It is a non-

ELECTRICITY.

conductor of electricity. Electric <sup>charges</sup> are constantly <sup>occurring</sup> in the air. (See Thomson's paper on effect of weather on operations. Pa. Acad. Rep. 1869.)

FURS, &c.

Furs, down &c. are very warm. In the Arctic regions furs must be used; and they make ~~the~~ exposure there tolerable, - even <sup>at</sup> 40° or 50° degrees below zero.



✕ Open, loose fabrics are always  
 warmer than compact, close ones; the air in the  
 interstices is a slow conductor. Thus, e.g., the coldest  
 things for the hands are tight kid gloves; the warmest,  
 woolen or fur mittens.

End 2<sup>3d</sup> Lecture, 1870

The "What is it!"  
 Grecian Bend !!!



ADVANTAGES  
OF  
FLANNEL.

not only its nonconducting property, but its  
The advantage of flannel, is its  
porosity; ~~and~~ enabling it to ab-  
sorb perspiration. It is also stim-  
ulating to the skin.

In tropical climates it keeps  
out heat (Ice in cellar, wrapped). Paper.

Those who <sup>are subject to</sup> ~~have~~ rheumatism,  
<sup>bronchitis,</sup> ~~or~~ <sup>other</sup> neuralgia, or any diseases which  
<sup>more or less</sup> depend on <sup>variations of</sup> temperature should  
wear flannel all the year round.

FEET.

But it need not be heavy in summer. ~~The feet.~~ In Europe & America,  
the feet are less respected than  
in the East. There they <sup>by refined people,</sup> are kept  
<sup>scrupulously</sup> perfectly clean. <sup>so that</sup> and to "kiss" the  
<sup>as an act of homage or reverence</sup> feet "is not ~~such~~ a <sup>repulsive</sup> disgusting  
practice. They don't <sup>there</sup> need such warm covering.

HEELS.

Shoes without heels are easiest  
to walk in, and loose shoes, <sup>that fit</sup> are  
better than tight ones. High heels  
throw the body <sup>unnaturally</sup> forward (Ladies)!

FAULTS  
IN  
SHOES.

Our shoes are ~~not~~ made as  
they should be. They should have  
a wide sole, allowing room for  
the foot to spread out. Anatomical lasts.  
There is some improvement in this within a few years.



By the way,

The first man to carry a silk umbrella  
 for ~~from~~ <sup>in</sup> Philadelphia, was Dr John Morgan; who, with  
 Dr Shippen, was the founder of the Medical Department  
 of the Univ. of Pennsylvania, more than a  
 century ago. Umbrellas to keep off the sun  
 are ancient in the East; in some oriental  
 countries they are allowed to be used only by persons of  
 high rank. The royal umbrella of the King of Ashantee  
 was ~~lately~~ taken to England as a trophy (1874) by  
 his conqueror, General Woodley.

Dio Lewis ←



Some parts of

WOODEN  
SHOES.

In France and England, children often wear shoes with wooden soles. What is <sup>so</sup> saved in money, is lost in health & comfort. Barefoot better.

STOCKINGS.

Stockings should be adapted to the weather. Many cannot wear woollen stockings. A few require even peppered soles.

HATS.

For the heads

Hats are of modern origin.

MODERN

need to

The Greeks & Romans did not wear any. The Mussulmans <sup>shave their heads, except a top knot, &</sup> wear caps & turbans. The turban keeps off the sun. Englishmen in India often wrap a veil around their hats. Use of an umbrella here, <sup>in hot rooms,</sup> is rational.

BALDNESS.

Heavy hats are unreasonable. They weigh on the brow, and exclude air, <sup>perhaps they thus promote or</sup> ~~and~~ cause baldness. Women seldom lose their hair as soon as men.

LIGHT FELT.

The light felt <sup>hat</sup> is a great improvement. The <sup>distinguishing</sup> present style of ladies' hats is unquestionable, if they carry <sup>sunshades</sup> in the <sup>hottest</sup> weather.

OPEN  
VESTS.

~~It is a~~ <sup>was once</sup> a common error to leave the breast almost <sup>fashioned</sup> uncovered. Old vests were open almost all the



X  
^ Gymnastic dress: used often now  
by ladies for mountain excursions  
in travelling.

"  
The "Ereian head" was never seen nor heard of  
in the classic Greece of Pausanias and Phidias.

End of Lecture 24<sup>th</sup> 1867  
[End of Lecture 12<sup>th</sup>, 1872]



way down.

At present the female dress is <sup>about</sup> as <sup>reasonably</sup> good as it has ever been. There is plenty of ventilation below <sup>with proper</sup> very ~~agitating~~, no doubt.

It has one fault, however.

Ladies cannot take <sup>proper</sup> exercise. If the skirts did not go <sup>so far</sup> below the knees, they would be better.

There is a tendency <sup>among some people</sup> to artificial <sup>expedients to heighten</sup> ~~means~~ of beauty, at the <sup>all</sup> present time. <sup>But</sup> Beauty unadorned, is adorned the most.

We see no marks of corsets on the ancient statues! If the female figure were allowed to develop <sup>naturally</sup>, there would be more beauties than there now are. The best cosmetic is fresh hair; The great beautifier is health.

Bedding. — Hair, cornhusks, feathers, down, are the ~~no~~ and straw are the materials mostly used.

Feathers and down <sup>for healthy people</sup> are too soft. The hardest bed we can comfortably

LADIES' DRESS.

CANNOT EXERCISE.

ARTIFICIAL BEAUTY.

BEDDING.

FEATHERS.



∘ Doubtful even for surgical cases. Expt.

Better, if possible, to remove pressure from affected parts,  
 & to change position often, even if but a little. Most perfect bed,  
 a good hair mattress on a feather bed, and this on a spring bedstead.

✕ Sick clothes  
 ^

change often,

of course with case.




Patent sponge is ~~very~~ Confor. 165

will be

sleep on the ~~best~~. <sup>table, and with care will serve well.</sup> It must be very absorbent & <sup>very good</sup> ~~demanded~~.

The hair mattress is the best.

Some people ~~try~~ to sleep on air or water ~~beds~~; ? . 

AIRING CLOTHES.

Frequent airing of clothes is necessary. They should be turned <sup>down always</sup> ~~over~~ as ~~soon~~ immediately on rising. Dio Lewis says that he restored a person to health and sleep by having his bed-clothes aired.

BATHING

Bathing was practised by the ancients for health and religion.

ITS ANTIQUITY

ancient

~~It~~ <sup>abstentions made a</sup> ~~was~~ part of the laws of the Egyptians & Jews. The Mohammedans took the custom from the Jews.

ROME.

public

The Greeks & Romans also practised it. At one time there were over 600 in baths in Rome. Some of the <sup>Roman baths</sup> ~~public~~ were as large as small towns; as the Baths of Caracalla; whose ruins yet remain.

DIVISIONS OF BATH

They had many apartments: an undressing room, tepid bath, gymnastic room, cold bath, anointing room, &c.



In Ireland, with Hot stones —  
 ✓ Amer. Indians do also

## Baths.

Cold	32°	70°
Cool	70°	85°
Temid	85°	90°
Warm	90°	95°
Hot	95°	100°
Vapor	100°	120°
Hot dry air	130°	250°



ORDER OF THE BATH.

The English adopted the Roman method. The Order of the Bath is of unknown origin, but, &c.

MIDDLE AGES.

In the Middle Ages, baths were much used for protection against leprosy.

NORTH EUROPE

Among the ~~English~~ Northern Europe, bathing has long been practised: cold & warm.

VAPOR BATH.

The Russian bath consists of a room heated to  $120^{\circ}$  -  $130^{\circ}$ . The person remains about 10 minutes. He then goes into a room to be washed.

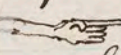
When that is done he <sup>can</sup> go out and plunges into the snow. <sup>often called Turkish B.</sup>

HOT AIR BATH.

In the hot air bath, the temperature is  $130^{\circ}$  -  $140^{\circ}$ . <sup>or  $200^{\circ}$  -  $250^{\circ}$  Fahrenheit</sup> Wilson testifies to the good of this kind of bath. Copious perspiration takes place. Water Baths are divided into cold, tepid, warm, & hot.

DIFFERENT KINDS OF BATHS.

Water softens the body. The principal effect depends on temperature.

 Different temperatures - page 134.

COLD BATH.

The cold bath has two effects. It is first depressing. If continued



~~As I have proved by experiment; viz. — a young man~~  
 after a cold bath of three minutes in water at ~~about 60°~~ —  
 had, by the ~~thermometer~~, an increase of temperature of 1°.

C. Marnell, Jr.

Lately introduced (after Currie)  
 in treatment of hot fever;  
 e.g. typhoid fever.

Remark on remedial use of the warm bath:

In croup, laryngismus, convulsions, tetanus, chorea,  
 hysteria, mania — as relaxant, antispasmodic  
 & calmative. In strangulated hernia & intestinal  
 obstruction, passing of gall stone, or stone in ureter.

Gold bath lately (1871-2), after Currie 50 years ago, in fever, <sup>(Cholera, typhoid)</sup> <sup>(Cholera, typhoid)</sup> <sup>(Cholera, typhoid)</sup>  
 & in malignant scarlet fever — & in cold

chill of pernicious or congestive fever — & in cold  
 low neuralgias & chronic rheumatism.

Vapor bath in hydrophobia — or Hot air bath.

Hot air bath in chronic affections of the  
 skin especially — or deficiency of secretions.  
 Hot sand bath, new — 1872

End of 2<sup>nd</sup> Lecture, 1873.

Theory of hydrophobia, use & abuse of water.



DR. BELL.

long, this will be the only <sup>result.</sup> effect.  
If we get out soon, there will be  
a reaction. Dr. Bell denies this fact,  
but he is wrong. This is the great  
object in the bath.

COOL BATH.

<sup>cold</sup> Delicate persons cannot use it.  
The cool bath is <sup>than the cold</sup> the most used.  
The tepid bath is best for <sup>the</sup> weak.

WARM  
AND  
HOT.

Warm & hot baths are only used in  
certain <sup>or for feeble or old persons.</sup> diseases. Warm is relaxing - hot stimulant.

INFANTS.

Young infants require the water  
to be as high as 90° - at first; carefully down.

SHOWER  
BATH

The shower-bath is safer than the  
plunge bath, in doubtful cases.

The hot bath is suited to those who  
suffer from neuralgia, chills, anemia &c.

TIMES OF  
USING  
BATHS.

Times of using baths - We should  
not bathe after taking a full  
meal. Just as a full meal <sup>before sleeping</sup> ~~causes~~ <sup>may</sup>  
cause nightmare, so in this case.

Explanation

EXERCISE.

The best time is before a meal.  
<sup>or best time or before breakfast</sup> Exercise before bathing, is not

disadvantageous even if we are  
heated <sup>Sometimes hot</sup> provided we are not exhausted,  
<sup>or out of breath or with quickened heart.</sup>



Good in skin diseases & chronic rheumatism  
 & constipation; sometimes  
 in affections of the liver:

# useful especially in an-  
 -emia, neuralgia, & chronic intermittent,  
 & other, chronic, cachectic affections.

End 23 Dec. 1867

\* Coldest in Parma Tell. Apr. 51°

Wan. H. & J. Virginia

Hot Springs Calif. 200° &c - keeps -  
Salt baths at home - for feeble children &c.



Baths are simple or medicated. Oil, milk, blood, &c. have been used on particular occasions.

GAS BATHS.

In some <sup>places, near mineral</sup> springs, there are jets of  $\text{CO}_2$ . In certain diseases, the body <sup>may</sup> be exposed to them.  $\text{CO}_2$  has a pungent effect. If long continued, it is anæsthetic.

MEDICATED BATHS.

Medicated baths are <sup>chiefly</sup> saline, acidulous, chalybeate, & sulphurous. They have the same effects as when the components are taken into the stomach; but in less degree.

SULPHUROUS.

Sulphurous water is alterative; chalybeate, is tonic.

SALINE.

Saline waters <sup>mostly increasing them</sup> affect the secretions. The benefit is also due to local causes, change of scene, &c.

VICHY.

The <sup>alkaline</sup> baths of Vichy, in France are <sup>recommended</sup> for gout. <sup>of many mineral springs</sup> Ems, & Lüttich.

EMS.

The water at Ems <sup>in Germany</sup> is  $124^\circ$ .

The highest in Europe is  $150^\circ$ .

TEMPERATURE OF THE SEA.

The temperature of the sea, is lower than that of fresh water at the same season & latitude.



## Evils & Dangers of Constipation

DANGERS  
OF CONSTIPATION.

1. Irritation & Inflammation of the Bowels.
2. Hernia, & Strangulation.
3. Obstruction of the Bowels.
4. Sympathetic Disturbance of the stomach, brain, &c.
5. Blood-poisoning. (Septæmia) from arrest of excretion from the intestinal glands.
6. Hemorrhoids.

AIDS TO  
THE BOWELS.

### Aids to the Bowels.

1. Fruit, fresh or dried.
2. Bran bread, molasses &c.
3. Regularity of periods for defecation.
4. Kneading the abdomen.
5. Laxative medicines, as Rhubarb, &c.  
*enemata or suppositories sometimes; give vom. & extract in old tedious cases.*

CAUSES  
OF CONSTIPATION.

### Causes of Constipation.

1. Accumulation in the Rectum from neglect, & obstruction.
2. Deficient peristaltic muscular power.
3. Deficient innervation.
4. Insufficient Intestinal secretion.



DENSITY.

The <sup>gentle</sup> stimulation of the <sup>skin by the</sup> water, makes sea bathing <sup>more refreshing</sup> ~~better~~ than <sup>that mineral waters,</sup> fresh, but its greater density tends to drive the blood to the head. The head should be dipped soon & often. The density of sea water is <sup>much</sup> greater than that of fresh water. It is easier to float in it. <sup>to be beneficial.</sup>

SHORT BATH.

The <sup>sub</sup> bath should be short. Fifteen minutes is long enough. <sup>This is the report of a French physician after many years observation at Boulogne.</sup> ~~the report of a French physician after many years observation at Boulogne.~~ <sup>lecture XXIV</sup> ~~Attempt of a champion swimmer Brit. Channel, 1872. Threw 3 1/2, almost dead.~~

HOW TO PREVENT COLD.

A very good way to avoid taking cold, is to bathe the neck & chest every morning, in cold water. Cold water warms better than hot does.

The next subject is → (skip, 1871)

### Hygiene of the Hair.

HYGIENE OF THE HAIR.

VEGETABLE.

Hair is a vegetable growth. If allowed to get matted, it dies at the <sup>misplaced greasy plot.</sup> roots, like a <sup>away</sup> It grows after death. It is necessary to keep the head clean, but too much washing is injurious. It washes out the natural grease.

WASHING.

GREASE.

Grease should be used, only when



with oil of bitter almonds for preservation of odor.

[End of Lecture 13<sup>th</sup>, 1872] ←

Alexander the Great first made his soldiers remove the beard —  
 \* Roman soldiers, & gladiators —

Papal mummies at Court of France  
 Beardless Louis XIII & in Spain Philip V.

Cromwell — Round heads & carles

Ten years ago, it was ~~hardly~~ <sup>not</sup> respectable in England to wear a  
 moustache. The ~~Continental~~ European custom spread first to America,  
 & now more slowly in England.

(Too much hair is the fault of fashion  
 with ladies at the present time (1871). And not only women  
 or bought locks of hair, — but barbarous compounds of other  
 kinds to substitute it. The chignon is an abomination!  
 I believe it is now, happily, disappearing in most places (72)



quinine

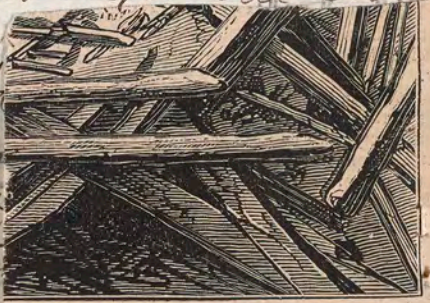
OBJECTS USED.

necessary, from deficiency of the natural sebaceous matter. Cantharides, ammonia, & castor oil are most commonly used for the hair.

BEARD.

If the hair be lost from illness, it should be shaved & afterwards kept cut close.

It has often been found to wear the beard.



protects the throat.

as a natural respirator.

SHAVING.

It is strange that

be so nearly universal.

I have never seen a man who does not shave the most

shaving is obscure.

shaved when they were mourning.

The James shaved bottom out than hands when in affliction.

HYGIENE OF THE TEETH.

Hygiene of the Teeth.

EARLY DECAY IN AMERICA.

In this country, the teeth decay very soon. At a Dental Convention held some years ago, four causes were suggested viz:

ACIDITY.

1st. Acidity of our food. This is not so. Acid will dissolve the mineral part of teeth so, that it is not safe to eat even alum. The only way in which it is possible for acid



1 mix oil of bitter almonds for presentation of ovals.

[End of Lecture 13\*, 1872] ←

Pliny states that the Romans did not begin to shave till the year of Rome 454, when Publius Ticius brought over a cargo of barbers from Sicily. He adds that Scipio Africanus first set the fashion of being shaved every day. But, according to the same authority, after the age of forty-nine, every man was expected to wear his beard long. Young men underwent their first snipping at the age of twenty-one, and visits of ceremony were paid on that important occasion. The first chip crop was devoutly inclosed in a small gold or silver box, and then presented as a votive offering to some divinity, mostly Jupiter Capitolinus. The first fourteen Emperors of Rome were shorn, down to Adrian, who revived the beard to hide certain blemishes on the imperial skin. Beards held their own till Constantine, whose mother, Helena, became famous as the "invent-

Great first made his soldiers remove the beard -  
Soldiers, & gladiators -

manic at court of France  
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kinds to substitute it. The chignon is an abomination!  
I believe it is now, happily, disappearing in most places [72])



quarries

OBJECTS USED.

necessary, from deficiency of the natural sebaceous matter. Cantharides, ammonia, & castor oil are most commonly used for the hair.

BEARD.

If the hair be lost from illness, it should be shaved & afterwards kept cut close.

It has often been asked if it is good to wear the beard. It is, certainly. It protects the throat against cold; perhaps, also, the mouth.

SHAVING.

It is strange that shaving should be so universal. The plainest people shave the most. The history of shaving is obscure. The Egyptians shaved when they were mourning. The Jews shaved but wore their heads when in affliction.

HYGIENE OF THE TEETH.

EARLY DECAY IN AMERICA.

ACIDITY.

The next subject is the

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In this country, the teeth decay very soon. At a Dental Convention held some years ago, four causes were suggested, viz:

1st. Acidity of our food. This is a sufficient cause. Acid will dissolve the mineral part of teeth so, that it is not safe to eat even alum. The only way in which it is possible for acid



†  
^ Not impossible:— amount of lime in soil  
has been found to affect the size of bones  
in cattle pastured upon it.

○  
*Leptothrix buccalis.*

End of 24<sup>th</sup> Lecture, 1868.



INDIGESTION.

<sup>unfavorably on the teeth</sup>  
to act as in indigestion, acid being formed in the stomach and thrown into the mouth.

WANT OF LIME.

2nd. Want of lime in our food. That this is not so is proved <sup>probably</sup> that phosphate of lime passes in our excrement, showing that there is an excess of it in the body. (3)

INHERITED PROCLIVITY.

3rd. Inherited race proclivity. This has no doubt some effect. The negroes have good teeth. The English lose their teeth soon. Egyptian boatmen <sup>drank chaly, alkali milk & but</sup> <sup>by the fact urine</sup> <sup>as they came out</sup>

HASTE IN CHEWING.

4th. Haste in chewing. This is the cause. Fibres of meat get between the teeth and decaying there, <sup>metigate</sup> decay the teeth. Imperfect mastication produces indigestion <sup>al</sup> so, <sup>what results</sup> acid thus helps. <sup>Americans habitually eat too fast.</sup>

TARTAR.

Tartar <sup>mineral deposit & minute</sup> is a vegetable growth on the teeth. Some say it is protective. A sound, <sup>smooth</sup> clean tooth is much better.

CLEANING THE TEETH.

Cleaning the teeth, at least once a day, is important. <sup>with a brush</sup> Hard rubbing is safe. <sup>made of very fine</sup>

POWDERS.

The best tooth powder, is charcoal,



Castile Soap very good —

End 24<sup>th</sup> Lecture, 1870

\* Exclusively so — large intestine & kidneys:  
partially — liver, lungs, & skin.



C. soap, myrrh, & <sup>may be made off hand with</sup> Peruvian bark.

TOOTH  
WASH

A good tooth wash <sup>in a tumbler</sup> about 10 drops of tincture of myrrh, in a glass of water. The myrrh acts on ~~the~~ exposed nerve and prevents further decay.

TOOTH-ACHE

EXPOSED  
NERVE.

There are three kinds of toothache.  
1st. Exposed <sup>in a hollow tooth</sup> nerve. This is the most common. <sup>↓ jaw, with or without abscess;</sup>

INFLAMMATION

NEURALGIA

2nd. Inflammation (cold in face)

3rd. Neuralgia.

CREOSOTE.

We have the most control over the first. Creosote is a certain cure. It coagulates the neurine. <sup>acetate of lead,</sup>

OTHER  
OBJECTS  
USED

Oil of cloves, laudanum, chloroform, <sup>speckles,</sup> & tobacco fumes are sometimes used. Prevention, when teeth are tender.

The next subject is the

HYGIENE OF  
EXCRETION

Hygiene of the Excretory Organs.

The liver is not excretory only.

We have no direct control over it. Mercury <sup>in morbid states</sup> does affect it. <sup>come how,</sup> Dr Aschmann <sup>is a</sup> <sup>is a</sup>

LIVER.

Diseases of the liver are frequent in hot climates. ~~There~~ we should ~~there~~ avoid excess of food which <sup>rich, fatty</sup>



\* Gastro-hepatic catarrh of Dr. Chambers.

o Cholemia, cholesteroma of Flint,

End of 25<sup>th</sup> Lecture  
1867

It is natural to almost every one, in health, to have one evacuation daily. I have known one man, for years together, in perfect health, to average 2 passages daily. A <sup>medical</sup> gentleman attending my lecture on this subject in 1874, told me of a blacksmith who lived to be 74 years old, who for 40 years averaged but one passage in 9 days - yet with good health, except rectal prolapses. During sea-sickness the bowels (as well as kidneys) act very slowly. I have been, at sea, 7 days without any movement of, or accumulation in, the bowels. E. H. B. told me had been 11 days at sea without a passage.



requires the assimilating & action of the liver. <sup>Alcoholic drinks also stimulate or irritate the liver, & do the most harm in hot climates & seasons.</sup>

BILIOUSNESS

The term biliousness is misused.

Simple nausea <sup>sickness</sup> of the stomach, is sometimes so called.

DIFFERENT KINDS.

Inflammation of the ~~intestine~~ <sup>not, un-</sup> involving the liver, is common.

In real biliousness there are certain signs: yellow tongue, eyes, & skin; bitter taste; nausea; & dizziness. Light or simple diet is good for it; also, blue mass, bicarbonate of soda and magnesia.

Especially on turning the eyes quickly

BOWELS.

Bowels:— We have the most direct control over them.

NEGLECT.

Neglect will cause constipation, though this may be ~~produced~~ <sup>caused</sup> by other things. The longer the neglect, the greater the evil.

ABSORPTION.

The mucous membrane of the large intestine can absorb the liquid portion of excrement. This will make the excrement so hard that it ~~will~~ <sup>may</sup> be impossible to expel it.



Wheat - Comp. Ext. Colocynthis -  
 Rhubarb - Senna with asfoetida or anise -  
 Magnesia - Sulphur - Ext. Hyoscyamus  
 Ext. nuc. vomice. - Resin of Podophyllum  
 Quercus &

Suppositories: Warm soapwater, - Kellor soap.

In children, given occasionally - manna -



one of the

of health; "non fortiter  
comprimere animum;"



P 172

Evils and dangers of constipation (page 172)

Causes.

It is a primary rule not to allow the anus forcibly to compress itself.

We should use good food, fruit in season. All fruits are good. Bran bread is good. Regular time for defecation. Most people find after breakfast, the best time, though any will do.

Causes of Constipation (page 172)

The bowels are also aided by pressure; and mild cathartics.

Deficiency of innervation is seen in studious men particularly.

Exercise promotes regularity.

Urine:—Neglect will not produce any serious effects except local irritation. It is almost impossible to detain the urine very long. Gravel is promoted in those who have such a tendency to it, by too long detention.

When the kidneys do not act sufficiently, the skin acts more. On a cold day when the skin

SOON  
TO  
PREVENT  
CONSTIPATION  
apple prunes

STEWED PRUNES.  
PAGE - 191

PRESSURE.

INNERVATION.

URINE.

Alcoholic drinks  
promote softness  
produce diseases of kidneys.

SKIN  
&  
KIDNEYS.



^ Care of the skin is, therefore, virtually  
 at the same time care of the kidneys.

(Sabbath  
 morning)

□ I saw a <sup>some time since</sup> patient ~~a few weeks ago~~ (A.P., 1872), in whom,  
 there being heart-disease with aortic regurgitation, and ~~very~~  
 probably <sup>also</sup> embolism of the ulnar artery, the left hand became  
 gangrenous.

^ mod force)







